

2015

# Publics' emotional responses expressed in different clusters of corporate crises

Lianshan Zhang  
*Iowa State University*

Follow this and additional works at: <https://lib.dr.iastate.edu/etd>



Part of the [Mass Communication Commons](#)

---

## Recommended Citation

Zhang, Lianshan, "Publics' emotional responses expressed in different clusters of corporate crises" (2015). *Graduate Theses and Dissertations*. 14703.  
<https://lib.dr.iastate.edu/etd/14703>

This Thesis is brought to you for free and open access by the Iowa State University Capstones, Theses and Dissertations at Iowa State University Digital Repository. It has been accepted for inclusion in Graduate Theses and Dissertations by an authorized administrator of Iowa State University Digital Repository. For more information, please contact [digirep@iastate.edu](mailto:digirep@iastate.edu).

**Publics' emotional responses expressed in different clusters of corporate crises**

by

**Lianshan Zhang**

A thesis submitted to the graduate faculty  
in partial fulfillment of the requirements for the degree of  
**MASTER OF SCIENCE**

Major: Journalism and Mass Communication

Program of Study Committee:  
Su Jung Kim, Major Professor  
Gang Han  
Huaiqing Wu

Iowa State University

Ames, Iowa

2015

Copyright © Lianshan Zhang, 2015. All rights reserved.

## TABLE OF CONTENTS

	Page
LIST OF FIGURES .....	iv
LIST OF TABLES .....	v
ACKNOWLEDGMENTS .....	vi
ABSTRACT .....	vii
CHAPTER 1 INTRODUCTION .....	1
CHAPTER 2 LITERATURE AND THEORETICAL FRAMEWORK.....	4
Crisis Communication .....	4
Attribution of Responsibility and Crisis Cluster.....	5
Crisis Response Strategy.....	9
Emotional response in Crisis Communication.....	10
CHAPTER 3 METHODS .....	19
Sampling Procedure .....	19
Data Collection .....	20
Coders and Training.....	21
Coding Instrument .....	22
Data Analysis .....	22
CHAPTER 4 RESULTS .....	24
Publics' Anger Responses by Crisis Cluster.....	24
Publics' Sadness Responses by Crisis Cluster.....	26
Publics' Most Frequently Expressed Emotional Response by Crisis Cluster.....	31
Other Types of Emotional Response by Crisis Cluster .....	31
CHAPTER 5 DISCUSSION .....	36
CHAPTER 6 IMPLICATIONS AND LIMITATIONS.....	41
Limitations and Suggestions for Future Research .....	45
REFERENCES .....	47

APPENDIX A. NINE CRISIS CASES USED IN THE STUDY.....	53
APPENDIX B. CODING SHEET FOR CONTENT ANALYSIS OF PUBLICS' POSTINGS.....	56

## LIST OF FIGURES

	Page
Figure 1 Frequency Distribution of Publics' Emotional Responses by Crisis Cluster.....	29
Figure 2 Publics' Emotional Responses in Each Crisis Cluster.....	32

## LIST OF TABLES

	Page
Table 1 SCCT Crisis Types by Crisis Clusters .....	8
Table 2 Publics' Emotional Responses in Three Crisis Clusters .....	25
Table 3 95% Confidence Interval of Publics' Emotional Responses' Proportions' Difference in Three Crisis Clusters.....	28
Table 4 Publics' Emotional Responses in Nine Crisis Cases .....	30

## ACKNOWLEDGMENTS

I would like to express my most sincere thanks to my committee chair, Su Jung Kim, and my committee members, Gang Han and Huaiqing Wu for their guidance and support throughout the course of this research. Without your great help, patience and valuable advising in both my research and self development, I could not accomplish my study.

In addition, I would also like to thank my friends, colleagues, the department faculty and staff for making my time at Iowa State University a wonderful experience.

Finally, thanks to my family for their encouragement, patience, respect, and love throughout my life and especially throughout the process of my study.

## ABSTRACT

Emotion is one of the most important indicators of the stakeholders' interpretation of crisis situation; however, little research has paid enough attention to how publics experience different types of emotions in different crisis clusters. The purpose of this study is to investigate how publics' emotional responses vary in three different crisis clusters: victim cluster, accidental cluster and preventable cluster. A content analysis of 1,800 publics' postings to nine crisis cases (three cases in each crisis cluster) posted on these nine organizations' official Facebook pages or official websites reveals that publics feel a range of different emotions in crisis situations, including anger, anxiety, fright, sadness, sympathy, disappointment, alertness and gratefulness. In addition, different primary emotions are expressed by publics in three different crisis clusters. Anger is the dominant emotion in preventable crisis, and also is the most frequently expressed emotion in accidental crisis. However, in victim crisis cases, sadness is the most frequently expressed emotion by publics. Overall, the findings indicate the significant role of public's emotional response in a crisis. Also, the findings demonstrate a potential for developing an effective corporate response strategy in a given crisis situation, considering the crisis cluster and publics' emotional response.



## CHAPTER 1

## INTRODUCTION

When a crisis strikes an organization, it needs to develop and employ the most appropriate strategic response to effectively communicate with the public to protect its reputation. At the same time, when a crisis occurs, the public is eager to learn information about the cause of the crisis in order to evaluate the organization's responsibility. Coombs and Holladay stated that a crisis is "an event for which people seek causes and make attributions" (2004, p. 97). Thus, following demand for the appropriate usage of response strategies, particularly in light of Benson's (1988) call for more research on crisis clusters and response strategies, vast research has studied various types of crisis. In addition, organizations' crisis response strategies have been investigated by applying a situation-based perspective. One of the most prominent contributions is the advancement of situational crisis communication theory (SSCT) (Coombs, 2004), which links attribution theory to image repair analysis. SSCT offers a system for matching strategic responses to different types of crisis situations in order to understand how response strategies affect organizations' reputations.

However, in crisis communication, publics' perceptions of a crisis and acceptance of an organization's response do not only depend on what the organization reveals to them, but also on their own interpretation of the crisis. In addition, during the process of forming a perception, emotional as well as cognitive responses contribute to the process. Coombs (2007b) argued that, although most studies have investigated the usage of crisis response strategies from an organization-based perspective, little research has taken into account the publics' perceptions. Jin, Pang and Cameron (2007, 2012) as well as other crisis communication researchers (e.g., Choi & Lin, 2009; Jin, Liu, & Austin, 2014) have advocated for a deeper understanding of stakeholders'

emotions and the ways in which they are integrated with cognitive processes, and stated that crisis responsibility attribution is another vital aspect of developing effective crisis response strategies. Thus, recent studies have taken stakeholders' interpretations of the corporate response into consideration and begun to explore how stakeholders' emotional responses influence their perceptions and understanding of a crisis (Lerner & Keltner, 2000; Nabi, 2002, 2007; Choi & Lin, 2009; Kim & Cameron, 2011). This emotion-based perspective has gained more attention recently in crisis communication research, and it has been found that emotions are one of the most important indicators of stakeholders' interpretation of a crisis situation (Jin, Pang & Cameron, 2010).

Although many studies have observed the importance of publics' emotional responses to an organization's crisis, little research has paid attention to how publics experience different types of emotions in different crisis situations. As suggested by the integrated crisis mapping (ICM) model, publics indeed generate different types of dominant emotions in different crisis situations. For example, anger is more likely to be elicited in a crisis when an organization's engagement is high, such as a crisis associated with reputational damage or an accident caused by human error. On the other hand, fear is more likely to be generated when the organization's engagement is low, for instance, a crisis involving rumors. Thus, it is very important for an organization to understand how different crisis clusters can elicit different emotional responses from the public. Only by understanding the various types of emotions that publics are likely to experience can an organization effectively determine the most appropriate crisis response strategy to manage and meet publics' emotional needs, which in turn can positively affect publics' behavioral responses and ultimately rebuild an organization's reputation.

This study aims to fill the research gap by conducting a quantitative content analysis to investigate how publics experience different emotions in different crisis clusters, and what dominant emotions exist in different corporate crisis situations. With the analysis of publics' emotional responses in real crisis events, this study validates the significant implications of publics' emotional responses in crisis situations. Also, it provides a more systemic approach to develop crisis responses from an emotional-based perspective, which advances the current understanding in crisis communication and offers practical insights on how to manage and meet publics' emotional needs.

This thesis is organized as follows: First, Chapter 1 introduces the background, motivation, and goal of this study. Next, a review of relevant literature is presented in Chapter 2. Based on the discussion of the previous literature, this study poses two hypotheses and two research questions. Chapter 3 presents the methodology of this study by identifying nine crisis cases, as well as the coding instrument and the data collection process employed in the study. Chapter 4 shows the results of data analysis, while Chapter 5 discusses the findings of the study. Finally, Chapter 6 includes a summary and the implications of the study, as well as recommendations for future research.

## CHAPTER 2

### LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This chapter discusses previous literature about crisis communication and the relationship between crisis cluster and attribution of responsibility to provide this study's conceptual foundation. It also explains how an organization selects the most appropriate crisis response strategy to repair its reputation depending on crisis cluster. Next, this chapter discusses the significant role of publics' emotional response in crisis situations and how emotional responses may vary in different crisis clusters. The chapter concludes with an outline of two hypotheses and two research questions.

#### Crisis Communication

Seeger, Sellnow and Ulmer (1998) defined organizational crises as "specific, unexpected, and non-routine events or series of events that create high levels of uncertainty and threat or perceived threat to an organization's high priority goals" (p. 233). During a crisis, an organization faces a series of reputational asset threats, while publics suffer the loss of various benefits and experience emotional shock. An organization must efficiently communicate with publics within a short response time through various stages to alleviate the sense of threat perceived by the public.

Coombs (2010) defined crisis communication as "the collection, processing, and dissemination of information required to address a crisis situation" (p. 20). When a crisis occurs, the negative outcomes of the crisis can be detrimental to stakeholders' physical, emotional, and financial benefits. A crisis also affects the interaction between an organization and its stakeholders, and tends to make their relationship fragile due to the resulting damage to the organization's reputation and to publics' trust. Reputation is widely regarded as a valuable,

intangible asset that directly influences an organization's investment interest, financial performance, and other factors. (Fombrun and van Riel, 2003). Thus, rapid and effective crisis communication between an organization and its stakeholders is desperately needed to reduce damage to an organization's reputation. When a crisis does damage an organization's reputation, public relations practitioners must determine the most appropriate crisis response strategy that matches the crisis situation and integrate these considerations into the organization's overall crisis communication plan. However, this is an extremely challenging undertaking when faced with a sudden crisis with limited time to develop a response.

Therefore, a growing body of research in crisis communication has focused on the interrelationship between crisis situations, typologies of crisis response strategies, and crisis perception (e.g., Coombs & Holladay, 2002, 2005; Egelhoff & Sen, 1992; Mitroff & Anagnos, 2001). This line of research offers methods and guides public relations practitioners in how to efficiently reduce loss and restore an organization's reputation in crisis. It also provides avenues for further research to investigate crisis communication depending on different crisis situations.

#### Attribution of Responsibility and Crisis Cluster

Previous research has drawn significant attention to the influence of situational variables, such as crisis clusters, the origin of crisis, and the effectiveness of crisis response strategies. One of the most notable contributions is the advancement of situational crisis communication theory (SCCT), which is based on the assumption that different crisis response strategies should match different levels of attributions of crisis responsibility, by linking attribution theory and image repair analyses (Coombs, 2006). According to SCCT, different degrees of attribution of crisis responsibility vary depending on different crisis situations.

During a crisis, attribution is regarded as a cognitive process activated to identify the responsibility of organizational actions or personal behaviors (Harvey, Ickes & Kidd, 1976; Shaver, 1985). Wiener (1986) developed attribution theory based on the proposition that when an unsettling event happens, publics need to assign responsibility for the crisis by evaluating the causes of the event, particularly when it is a negative and unexpected event. When making attributions, publics can experience diverse emotional reactions to the crisis (Choi & Lin, 2009). Choi and Lin (2007) pointed out that after receiving responses from an organization regarding a crisis, publics are likely to generate certain emotions to the crisis, which in turn influences their perceptions of the organization. According to previous research, nine different emotions that publics may experience during different types of crisis situation have been identified: alertness, anger, contempt/disgust, confusion, fear/anxiety, relief, sadness, shame, and sympathy/compassion (e.g., Choi & Lin, 2009; Coombs & Holladay, 2005; Jin, 2009). Anger and sympathy have been extensively studied in attribution theory as two core emotions. Furthermore, Jin, Pang and Cameron (2007) have developed the integrated crisis mapping model (ICM), which is based on “a public-based, emotion-driven perspective” (p. 81), to understand how a series of diverse emotions likely to be felt by publics vary in different crisis situations. This model uses two continua (the level of an organization’s engagement in the crisis and the primary public coping strategy) to analyze different public emotional responses to different crisis situations. The ICM offers a clearer understanding of how to better develop organizational response strategies by taking publics emotional needs into account.

In a nutshell, the more responsibility that publics attribute to an organization in a crisis, the more reputational assets will be threatened and the lower the organizational reputation will be (Coombs, 2007). When a crisis is severe and is caused by an organization, people are more likely

to make responsibility attributions to organizational actions and anger is evoked, which in turn leads to negative behavioral responses (An, Gower & Cho, 2011; Choi & Lin, 2009; Coombs, 1995; 2007a). However, when an organization is judged not to be responsible, sympathy is likely to be elicited, which may lead to positive behavioral responses (Weiner, 2006; Park, 2008; Zaremba, 2010).

Situational crisis communication theory applies the basic ideas of attribution theory to further provide guidelines by developing a system of classifying crisis clusters and matching them to corresponding crisis response strategies. In other words, SCCT argues that different crisis situations (including crisis clusters, crisis history, and prior reputation) lead to different amounts of responsibility that stakeholders attribute to the organization, which in turn requires different crisis response strategies (Coombs, 2007). The stronger the causal responsibility attached to an organization, the more accommodative strategies must be employed to restore reputation and address stakeholders' concerns (Coombs, 1998; Coombs & Holladay, 2002).

Situational crisis communication theory begins with an assessment of the level of reputational threat attached to a crisis, including initial crisis responsibility, crisis history, and prior relational reputation (Coombs, 2007). The first step in evaluating a threat is to determine the initial crisis responsibility, which is analyzed based upon the crisis cluster. Crisis cluster is a framework that indicates how people should interpret the crisis event, and how much responsibility that stakeholders attribute to the organization (Coombs, 2004).

According to SSCT, there are three clusters of crisis types (see Table 1): victim cluster, accidental cluster and intentional cluster. The victim cluster contains crisis types that have very weak attributions of crisis responsibility (e.g., natural disasters, rumor, workplace violence and product tampering) and produce very low attributions of crisis responsibility. The organizations

**Table 1.****SCCT Crisis Types by Crisis Clusters**

<b>Crisis Cluster</b>	<b>Definition and Sub-categories</b>
<b>Victim Cluster</b>	<p>In these crisis types, the organization is also a victim of the crisis. (Weak attributions of crisis responsibility = Mild reputational threat)</p> <p><i>Natural disaster:</i> Acts of nature damage an organization such as an earthquake.</p> <p><i>Rumor:</i> False and damaging information about an organization is being circulated.</p> <p><i>Workplace violence:</i> Current or former employee attacks current employees onsite.</p> <p><i>Product tampering/Malevolence:</i> External agent causes damage to an organization.</p>
<b>Accidental Cluster</b>	<p>In these crisis types, the organizational actions leading to the crisis were unintentional. (Minimal attributions of crisis responsibility = Moderate reputational threat)</p> <p><i>Challenges:</i> Stakeholders claim an organization is operating in an inappropriate manner.</p> <p><i>Technical-error accidents:</i> A technology or equipment failure causes an industrial accident.</p> <p><i>Technical-error product harm:</i> A technology or equipment failure causes a product to be recalled.</p>
<b>Preventable Cluster</b>	<p>In these crisis types, the organization knowingly placed people at risk, took inappropriate actions or violated a law/regulation. (Strong attributions of crisis responsibility = Severe reputational threat)</p> <p><i>Human-error accidents:</i> Human error causes an industrial accident.</p> <p><i>Human-error product harm:</i> Human error causes a product to be recalled.</p> <p><i>Organizational misdeed with no injuries:</i> Stakeholders are deceived without injury.</p> <p><i>Organizational misdeed management misconduct:</i> Laws or regulations are violated by management.</p> <p><i>Organizational misdeed with injuries:</i> Stakeholders are placed at risk by management and injuries occur.</p>

Source: Coombs, W. T. (2007b). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. Table 1



are viewed as “victims of the crisis” because the crisis is deemed caused by external forces that were beyond management’s control (Coomb, 1995). The accidental cluster contains crisis types that have minimal attributions of crisis responsibility (technical-error accident, technical-error product recall and challenge) and represents a moderate reputational threat. The crisis is considered unintentional or uncontrollable by the organization (Coombs and Holladay, 2002). Lastly, the intentional cluster contains crisis types that produce strong attributions of crisis responsibility (human-error accident, human-error product harm and organizational misdeed) and represent a severe reputational threat (Coombs and Holladay, 2002). The crisis is considered purposeful because publics believe the crisis could and should have been preventable (Morris, Moore & Sim, 1999; Reason, 1999). By identifying the crisis type based upon the three crisis clusters, crisis managers could anticipate the level of responsibility that stakeholders will attribute to the organization thereby finding out the most appropriate crisis response strategy.

### Crisis Response Strategy

Attribution theory and SCCT suggest that making an attribution leads to a responsibility judgment, which sequentially elicits publics’ emotions and further affects their behavioral responses. Thus, it is critical for an organization to select and use a crisis response strategy to repair its image and reputation since the organization’s response could shape publics’ evaluation and understanding of organizational action in causing the crisis (Lee, 2004). The most appropriate communication strategic response can best alleviate the organization’s reputational threats by evaluating the crisis situation and selecting a crisis response strategy that fits the crisis situation (Coombs & Holladay, 2002).

Among previous research on crisis response strategies, SCCT is one of the most contributed theories that help public relations practitioners select the best strategy corresponding

to the types of crisis situation. It offers crisis response strategies on the basis of analyzing organization's locus of control. SCCT argues that different crisis response strategies imply different degrees of an organization's acceptance of crisis responsibility. The more responsibility that stakeholders accredit to the organization, the more severe the reputation threat, and the more accommodative strategies need to be employed in the crisis response (Coombs, 2007).

SCCT advises three groups of crisis response strategies based upon the organization's acceptance of crisis responsibility: denial, diminish and rebuild (Coombs, 2006). When a crisis is classified as a victim crisis and the crisis is caused by external factors, public relations practitioners could use denial response strategies (Coombs & Holladay, 1996; Huang, 2006). In the case of accidental crisis situation, diminish response strategy could be used to provide objective information without adding additional restore strategy. However, in the case of the preventable crisis, which organization suffers the most severe reputation threat, rebuild response strategies are necessary to incorporate in the organization's crisis response to acknowledge its misbehavior and pacify victim, such as apology and compensation. Overall, SCCT indicates that the evaluation of organizations' responsibility of crisis is necessary to develop the most appropriate strategy that could be most likely to be accepted by publics to rebuild organization's reputation.

#### Emotional Response in Crisis Communication

Jin, Pang and Cameron (2007) argued that although situation-based responses are crucial for guiding an organization to respond to crisis situations, an emotion-based perspective should deserve more attention to help an organization develop crisis response strategies. Beyond the publics' cognitive response, affective responses also affect publics' understanding and perspectives of the organizational action and response in crisis. Lowenstein et al. (2001)

pinpointed that publics' emotion can act as information to guide their judgments and decision-making. Jing and Pang (2010) also mentioned that the role of emotion in crisis is the next frontier of crisis research. In addition, publics' emotional responses toward crises actually do not always follow in a certain way, and publics do not always experience certain fixed emotions in different crises.

Previous research has proven that making different levels of attribution of responsibility leads to publics' different judgments of organization's responsibility, which in turn elicits different emotions, influencing publics' behavioral responses (Loewenstein, Weber, Hsee, & Welch, 2001; Coombs, 2007; Jin, Pang, & Cameron, 2007; Choi & Lin, 2009). Specifically, high crisis responsibility always elicits negative public emotions (Choi & Lin, 2009; McDonald, Sparks, & Glendon, 2010) as well as negative behavioral responses.

Nabi (2003) referred "the emotion-as-frame perspective" (p. 230) to contend that different emotions can promote different degrees of message processing. Specifically, "discrete, context - relevant emotions selectively affect information processing, recall, and judgment (p. 228)." For example, Jorgensen (1996) proved that anger is a predictor of punitiveness, negative purchase intentions and also negative word-of-mouth (WOM) behavior (Coombs & Holladay, 2007), and indirectly reduces investment intentions.

In addition, Jin (2009) examined the variance in publics' acceptance of different organizational crisis responses, as a function of different emotions elicited by different crises. Four primary negative emotions including anger, sadness, fright, and anxiety differentially influenced participants' acceptance of crisis response strategies. Specifically, the results showed that when publics' primary emotion was anger, the publics were most likely to accept attacks on the accuser; nevertheless, when the primary emotion was sadness, compensation response

strategy was most likely to be accepted. Also, fear leads to venting intentions or avoidance; nevertheless, sadness could generate emotional support and positive thinking (Jin, 2009).

In line with Jin's findings, McDonald et al. (2010) summarized that the crisis initiated by an internal organizational issue usually resulted in publics' anger. Utz, Schultz, and Glocka (2013) also found that when people deemed the organizations intentionally caused a crisis, higher levels of anger would be elicited, compared to the perception that organizations were also the victims. Knowing that post-crisis stakeholders' affective outcomes have powerful influence on their attitudes and behavior responses, researchers have started to take stakeholders' emotion seriously in recent studies.

In SCCT, Coombs also considered the importance of emotions (e.g., Coombs & Holladay, 2002, 2004) and argued that stronger attributions of crisis responsibility increase stronger feelings of anger, while reducing feelings of sympathy (Coombs & Holladay, 2005). However, the SCCT model did not examine the difference in diverse dominant emotions that elicited by different crisis situations.

Jin, Pang, and Cameron (2007) indeed considered the diverse dominant emotions by developing a prominent model – integrated crisis mapping model (ICM). This model was established in order to better understand and develop organization–public communication. ICM is based on the public-driven and emotion-based perspective to demonstrate that emotions felt by publics varied in different level of organizations' involvement. In addition, ICM identified four primary negative emotions (i.e., anger, sadness, fright, and anxiety) that publics may experience in different crisis situations.

Jin, Pang, and Cameron (2012) revised ICM to analyze primary publics' emotion by using 14 crisis cases and two continua — the primary publics' coping strategy and the

organization's engagement in the crisis. The X-axis of the publics' coping strategy shows the two types of coping: problem-focused coping, which means that publics change the actual relationship with the organization through actual measures and steps taken; and cognitive-focused coping, which means publics change only the way in which the relationship is interpreted by the publics. "During the coping process, the publics can alter or revise their interpretations based on the exigencies of the situation" (Jin, Pang, & Cameron, 2012, p. 272). The organization's engagement on the Y-axis of the ICM model is the level of organizational engagement, ranging from high to low. Organization engagement contains several aspects, including what had happened in the crisis, the organizational goal in operational and reputational success, as well as the organization's responsibility of the crisis. High organizational engagement is regarded as "intense, consolidated, and sustained, with priority given in allocation of resources to deal with the crisis" (Jin et al., 2012, p. 272). On the contrary, low organizational engagement is defined as "the organization devoting comparatively less resources, effort, and energy to deal with the crisis" (Jin et al. 2012, p.272).

The revised ICM model found that anxiety is the default emotion that publics feel in a crisis situation. Also, the revised model showed that although anger, sadness, fright and anxiety still were the four primary negative emotions that publics experienced in different crisis situations (Jin, Pang, and Cameron, 2007), the primary level emotion that elicited by different crisis situations was different from the previous model suggested. Specifically, when in crisis that requires a high level of organization engagement, anger is the primary emotion and anxiety is the second level emotion; while in crisis that requires a low level of organization engagement, fright is the primary level emotion and sadness is the secondary-level emotion. These four primary negative emotions (i.e., anger, sadness, fright, and anxiety) were also found to influence

publics' judgments between crisis responsibility, relational trust and willingness to seek information from an organization involved in the crisis (Kim & Niederdeppe, 2013).

In Weiner's attribution theory, he classified two types of emotions based on the process of forming emotion: "outcome dependent-attribution independent" emotion and "attribution dependent" emotion (Weiner, 1986, p. 125). The "attribution independent" emotion is generated in the initial process of interpretation of a crisis. The causal attribution between the crisis and the organization does not have an impact on the "attribution independent" emotion. On the contrary, "outcome dependent" emotion is generated based on publics' evaluations and understanding of crisis outcome and causal attribution. Weiner also argued that these two types of emotions are not mutually exclusive, that is, these two emotions can be elicited at the same time. Furthermore, Choi and Lin (2009) explored these two types of emotions by content-analyzing consumers' responses to Mattel's recall of a dangerous toy. They found that crisis responsibility is one of the predictors of attribution dependent emotions: anger, surprise, worry, fear, contempt and relief. In addition, the findings identified six dominant emotions: anger (49%), alertness (11.3%), surprise (9.7%), worry (9.4%), fear (7.1%), and confusion (6.5%) in this recall crisis (Choi & Lin, 2009). However, this study did not further explore how different types of dominant emotions varied in different crisis situations. Also, Choi and Lin (2009) mentioned that future studies should explore whether these two types of emotions might change, depending on crisis types and crisis response strategies.

Recently, Jin et al.'s (2014) conducted an experiment to examine several vital variables that affect how publics consume crisis information. They categorized diverse emotions that people may experience in different crises into three clusters: attribution-independent emotions (e.g., anxiety, apprehension, fear), external-attribution-dependent emotions, (e.g., disgust,

contempt, anger), and internal-attribution-dependent emotions (e.g., embarrassment, guilt, shame). The difference between Jin et al.'s (2014) three clusters and Choi and Lin's (2009) two clusters of grouping crisis emotions as attribution dependent and attribution independent is that Jin detailed one more group: internal-attribution-dependent emotions, which is used to identify how publics felt about themselves associated with the organization involved in the crisis.

According to the findings of Jin et al. (2014), stakeholders are more likely to feel more emotions such as attribution-independent emotions, including anxiety, apprehension, and fear, and attribution-dependent ones, including anger, contempt, and disgust when they perceive the origin of the crisis as internal rather than external. Also, when publics perceive the origin of crisis as external, more accommodative responses are more likely to be accepted than defensive response strategies.

In addition to negative emotions, positive emotions such as hope (Jin, Park, & Len-Ríos, 2010), relief (Choi & Lin, 2009; Liu & Kim, 2011), and sympathy (Coombs & Holladay, 2005; Jeong, 2010; Kim & Niederdeppe, 2013) have also been observed in publics' emotional responses. Liu and Kim (2011) analyzed how 13 organizations differently framed the 2009 H1N1 flu pandemic crisis. The results of their study showed that sympathy is the most frequently employed positive emotion that was incorporated in organizations' crisis response strategies. Also, Fredrickson et al. (2003) found several positive emotions that publics felt in the crisis of September 11 attacks in the United States: sympathy, gratefulness, interested, love, and anger.

Among the studies that investigate how dominant emotions varied in different crisis, findings show publics certainly experience different sets of dominant emotions in different crisis clusters. For example, Choi and Lin (2009)'s finding of Mattel's recall crisis showed a set of negative emotion responses; while Fredrickson et al., (2003) displayed a set of positive emotion

responses in response to the 9/11 crisis. Overall, these findings give more evidence that publics indeed experience different types of emotions due to the attribution of different levels of crisis responsibility that correspond to different clusters of crisis situations. Also, these studies imply that the dominant emotions may vary in response to different crisis clusters.

Thus, according to previous research and framework, publics feel diverse emotions in different crisis situations, which in sequence, affects their perceptions and acceptance of organizations' crisis response strategies and their behavioral responses, such as negative purchase intentions and negative word-of-mouth (WOM) behavior (Coombs & Holladay, 2007). Therefore, by understanding the primary publics' dominant emotion, public relations practitioners could better develop organization's strategic responses in accordance with the emotional needs of the publics (Jin, Pang, & Cameron, 2010). For instance, suppose a hypothetical example of an airline company that needs to respond to its publics about an airplane crash crisis, which is mainly caused by the organization's misbehavior. Facing this crisis, the organization has to find a way to pacify publics' emotional response and rebuild its reputational asset. Without knowing stakeholders' emotional responses about this crisis, the organization's response may not be accepted by stakeholders. If anger dominates stakeholders' first emotional response, providing objective information only may not be enough to pacify their anger, thus more accommodative organizational responses will need to be employed in organizations' response. However, if fear dominates stakeholder's first response, just using strategies to rebuild reputation in the form of apology and compensation will not suffice to make customers feel safe.

Therefore, stakeholders' dominant emotional response elicited by different types of crisis could powerfully influence their subsequent processing of the crisis response strategies regarding the crisis. Consequently, understanding how the publics perceive and evaluate the crisis and



corporate responses would be critical when an organization searches for effective strategies to manage crisis situations. Therefore, the first step is to examine which dominant emotion is felt by publics in different clusters of crisis, and whether publics' dominant emotion varies in different crisis clusters.

Based on the previous discussion, when publics evaluate that a crisis is caused by an organization's internal factors and attribute a higher crisis responsibility to the given organization, anger would be more likely to be expressed than other emotions. Thus, this study poses H1 as follows:

H1: In the preventable crisis cluster, public will express more anger than in the accidental crisis cluster and the victim crisis cluster.

However, according to Jin, Pang and Cameron's ICM model (2012) and also other studies (Kim & Niederdeppe, 2013; Liu & Kim, 2011), when publics evaluate the origin of a crisis as internal and attribute a very weak responsibility to an organization, sadness is more likely to be expressed rather than anger. Therefore, this study presents H2 as follows:

H2: In the victim crisis cluster, people will express more sadness than in the accidental crisis cluster and the preventable crisis cluster.

For accidental crisis, which produces minimal attributions of crisis responsibility and represents a moderate reputational threat, it is difficult to predict which emotional response would be felt by publics. Also, few studies investigated which emotion would be most likely to be expressed by publics in accidental crisis. Thus, this study comes up with the following research question:

RQ1: What are the emotions that are most frequently expressed by publics in accidental crisis cluster, as evident in the publics' comments and reviews?

Furthermore, previous studies have suggested that the experience of a single emotion is the exception, not a common rule (Izard, 1977; Plutchik, 1980). According to Izard (1977), “Emotions interact with each other—one emotion may activate, amplify, or attenuate another” (p. 43). Thus, publics may express more than one kind of emotion. Other emotional responses could be triggered or different types of emotions could coexist at the same time. Consequently, this study put forward research questions below:

RQ2: What are other types of emotions expressed by publics in different crisis clusters, as evident in the publics’ comments and reviews?

RQ2-1: What are other types of emotions expressed by publics in crisis case of the victim cluster?

RQ2-2: What are other types of emotions expressed by publics in crisis case of the accidental cluster?

RQ2-3: What are other types of emotions expressed by publics in crisis case of the preventable cluster?

## CHAPTER 3

## METHODS

This study aims to examine publics' emotional responses to three different crisis clusters, thus using real-life cases would be more appropriate to evaluate how publics' emotional responses vary in different crises. Case studies provide a deep exploration of publics' responses in each crisis cluster. In addition, analyzing publics' emotional responses in a real-life context is more valid than analyzing elicited emotional responses that are generated in an experimental setting. Therefore, this study investigates publics' emotional responses by conducting a content analysis of their postings on major social media—organization's official Facebook page and official website. First, this study identifies and evaluates what publics' primary emotional responses are in each crisis case, and then examines which emotional responses are more or less salient in different crisis clusters.

## Sampling Procedure

Nine different crisis cases are selected and classified into three crisis clusters: victim cluster, accidental cluster and preventable cluster. This study chooses these crisis event samples from major crisis cases that happened between 2012 and 2014.

First, this study chooses top twenty crisis prone businesses identified in the 2012 and 2013 annual crisis report published by the Institute for Crisis Management (ICM), a research-based crisis communications consulting firm. Then, based on this report, this study searches websites that are considered as comprehensive sources of information in the public relations business to find major crises cases from 2012 to 2014. These include Bloomberg.com, holmesreport.com, reprules.wordpress.com, crisisconsultant.com, oursocialtimes.com, storify.com, agnesday.com, bridgeny.com, mengonline.com, and theclinegroup.com. These

reports provide an extensive list of case histories. Finally, by conducting a preliminary analysis of crisis clusters identified and publics' responses to these crises, nine crisis cases (i.e., three crisis cases in each crisis cluster) are selected in order to cover three crisis clusters comprehensively. These crisis cases include Hurricane Sandy, shooting at DC. Navy Yard, the Environmental Protection Agency spy rumor, the Obama healthcare website breakdown, Target credit card hacker, Susan G. Komen's financial support cancellation, General Motors recall, Barilla same-sex marriage statements and Starbucks dodge UK taxes. The detailed information of nine crisis cases is explained and listed in Appendix A.

### Data Collection

Publics mainly express their emotional responses publicly by posting on social media and websites that contain a discussion area. According to Facebook statistics, Facebook has 1.1 billion users in March 2013, and 48% Facebook users log in each day. In addition, on average, local business pages get 645 million views and 13 million comments in a typical week. Thus, an organization's official Facebook page and its official websites are selected to gather publics' postings, because they are the two primary media outlets that an organization uses to communicate with their publics on a regular crisis.

This study limits the time period of publics' postings within two weeks from the date when each crisis had occurred. After analyzing the postings that publics posted during a crisis, this study finds that publics usually perceive and pay attention to crisis events at the beginning of the crisis. After two weeks, publics postings and attention usually die out. Also, publics' emotional responses are less likely to be influenced by other factors in the first two weeks, such as mainstream media reports, word of mouth communication, etc. For some cases that generate less responses, this study extends the time period to one month. Specially, for the Environmental

Protection Agency spy rumor, little responses were found on its official Facebook page. Thus, this study selected two mainstream media's websites that contain a discussion forum to collect publics' postings, including the Washington Post and the Huffington Post. Two-hundred postings are randomly selected for each crisis case. In total, 1,800 publics' postings are randomly selected for nine crisis cases.

### Coding

Two coders, both graduate students who are familiar with the content analysis method, independently conducted the coding after a training session. With the help of a coding sheet (see Appendix B), two coders were given detailed definitions and examples of the various emotions and crisis clusters examined in this study. The emotion variables were coded based on the dichotomy regarding whether the given emotional response is present or not (i.e., 1 = present; 0 = not present; 99 = N/A). Two coders discussed and revised all coding categories to come up with an agreement based on 900 randomly sampled publics' postings. When some postings were difficult to be categorized, the coders discussed together to determine the most proper emotion category. Using Cohen's kappa method, the intercoder reliability for all eight emotional responses was 0.84. According to the intercoder reliability guideline that offered by Neuendorf (2002), .80 or greater is a high level of intercoder reliability that always acceptable in most situation, when using Cohen's kappa. Specifically, for anger responses, the intercoder reliability is 0.87; for anxiety responses, the intercoder reliability is 0.84; for fright responses, the intercoder reliability is 0.90; for sadness responses, the intercoder reliability is 0.85; for sympathy responses, the intercoder reliability is 0.81; for disappointment responses, the intercoder reliability is 0.85; for gratefulness responses, the intercoder reliability is also 0.83 and for alertness responses, the intercoder reliability is 0.81.

### Coding Instrument

The unit of analysis in this study is an individual posting. The variables to code include the clusters of crisis and publics' emotions.

#### **Crisis cluster**

For crisis cluster, the definition of crisis typologies by Coombs (2007b) was used (see Table 1). Coombs identified three categories of crisis cluster, victim cluster, accidental cluster and preventable cluster, and each cluster has several sub-categories.

#### **Emotion type**

Jin et al. (2012) found that anxiety is the default emotion that publics feel in crises. Also, anger, sadness, fright and anxiety are the four primary negative emotions that publics may experience in different crisis situations. In addition, Liu and Kim (2011) pointed out that sympathy is the most frequently employed positive emotion that incorporated in organizations' crisis response strategies. Thus, eight emotional responses are measured in this study, including anger, fright/fear, sadness, anxiety, sympathy, disappointment, gratefulness and alertness. They are defined in Appendix B based on previous literature (e.g., Choi & Lin, 2009; Coombs & Holladay, 2005; Jin, 2009; Jin et al., 2012).

### Data Analysis

This study compares the proportions of each emotional category found in three different crisis clusters to test hypotheses and answer research questions. First, the emotions that are expressed by publics are coded using eight emotion categories identified in previous studies: anxiety, anger, fright/fear, sadness, sympathy, disappointment, gratefulness and alertness. Then, the frequency distributions of publics' emotions by categories are analyzed. Two-proportion z-test is conducted to test the hypotheses.

Also, this study calculates a 95% confidence interval of each emotion's proportion. The reason why this study also calculates a 95% confidence interval is that there are 445 more emotional responses than the total number of postings (i.e., 1,800). That means, some of the postings have more than one emotional response, which results in bigger than a total percentage of 100% for all eight emotional responses (124% total percentage in victim crisis cluster). Thus, only presenting the relative proportion of each emotion compared to the total percentage may be less precise and misleading than using a confidence interval. Therefore, a 95% confidence interval provides a more rigorous range of each proportion and a direct comparison regarding which emotion's proportion is larger among three crisis clusters. Using p-value could test whether the proportions of any two emotions are significantly different, but it could not tell which proportion is larger. However, the test of statistically significant differences in confidence interval for two emotions' proportions could display which emotion's proportion is larger and how larger it is. Therefore, this study also tests the difference of emotion's confidence interval depending on three crisis clusters, which could give this study a lot of more information.

For example, for anger emotion, this study counts the frequency of anger emotional responses in each crisis cluster, and conducts a two-proportion z-test to test whether anger emotional response shows a statistically significant difference in three crisis clusters. In addition, to provide a more precise range of proportion, this study calculates the 95% confidence interval of anger emotional response in each crisis cluster. Furthermore, to compare the proportion of anger emotional responses expressed in different clusters of crisis, this study tests the difference of anger response's confidence intervals in different crisis clusters.

## CHAPTER 4

## RESULTS

This study examined the frequency of publics' different emotional responses via organization's crisis cluster and publics' postings to provide context for this study's hypotheses and research questions. A total of 1,800 comments (2,045 emotional responses) were collected and analyzed. The results revealed that there are significant differences among publics' emotional responses in responding to different crisis clusters. Among the eight emotions this study investigated, four emotions were found more frequently expressed by publics than other emotions (see Table 2), including anger (n = 844, 46.9%), anxiety (n = 300, 16.7%), sadness (n = 255, 14.2%) and alertness (n = 292, 16.2%). Also, each of these four emotions is one of the top three emotions that publics expressed in each crisis cluster. However, fright (n = 56, 3.1%), sympathy (n = 114, 6.3%), disappointment (n = 107, 5.9%) and gratefulness (n = 77, 4.3%) were much less expressed by publics in each crisis cluster. Therefore, fright, sympathy, disappointment and gratefulness could be viewed as non-major emotions in the nine crisis cases that are selected in this study. Thus, the analysis was mainly focused on the four more frequently expressed emotions.

#### Public's Anger Response by Crisis Cluster (H1)

H1 states that anger would be more expressed by publics in preventable crisis than in accidental or victim crisis. The results (see Table 3 and Figure 1) were consistent with the first hypothesis that people will express more anger in preventable crisis than in accidental crisis or victim crisis. In the three victim crisis cases, 9.8% (n = 59) of emotional responses are anger,



Table 2.

## Publics' Emotional Responses in Three Crisis Clusters

Emotional Response	Victim Crisis			Accidental Crisis			Preventable Crisis			Total	
	n	%	95% CI	n	%	95% CI	n	%	95% CI	N	%
<b>Anger</b>	59	(9.8)	[0.075, 0.122]	292	(48.6)	[0.447, 0.527]	493	(82.2)	[0.791, 0.852]	844	(46.9)
<b>Anxiety</b>	142	(23.7)	[0.203, 0.271]	130	(21.7)	[0.184, 0.250]	28	(4.7)	[0.030, 0.064]	300	(16.7)
<b>Fright</b>	34	(5.7)	[0.038, 0.075]	16	(2.7)	[0.014, 0.040]	6	(1.0)	[0.002, 0.018]	56	(3.1)
<b>Sadness</b>	234	(39)	[0.351, 0.429]	11	(1.8)	[0.008, 0.029]	10	(1.7)	[0.006, 0.027]	255	(14.2)
<b>Sympathy</b>	69	(11.5)	[0.090, 0.141]	34	(5.7)	[0.038, 0.075]	11	(1.8)	[0.008, 0.029]	114	(6.3)
<b>Disappointment</b>	2	(0.3)	[0.0004, 0.012]	76	(12.7)	[0.100, 0.153]	29	(4.8)	[0.031, 0.065]	107	(5.9)
<b>Gratefulness</b>	49	(8.2)	[0.060, 0.104]	22	(4.5)	[0.022, 0.052]	6	(1.0)	[0.002, 0.018]	77	(4.2)
<b>Alertness</b>	154	(25.7)	[0.222, 0.292]	111	(18.5)	[0.154, 0.216]	27	(4.5)	[0.028, 0.062]	292	(16.2)
<b>Total</b>	743	(124)		692	(115)		610	(102)		2045	(114)

Note: 95% CI in this table is the 95% confidence interval of emotion's proportion

which has a 95% CI [0.075, 0.122]. In the three accidental crises cases, 48.7% ( $n = 292$ ) of emotional responses are anger, which has a 95% CI [0.447, 0.527], while in three preventable crisis cases, over 82% ( $n = 493$ ) of emotional responses are anger, which has a 95% CI [0.791, 0.852]. Thus, the level of anger expression was significantly higher in preventable crisis than in accidental crisis (95% CI [-0.385, -0.285],  $p < .001$ ) or victim crisis (95% CI [-0.762, -0.685],  $p < .001$ ).

Specifically, in nine crisis cases (see Table 4) publics expressed the highest level of anger to Barilla crisis case (preventable crisis,  $n = 168$ , 84%), followed by Starbuck crisis case (preventable crisis,  $n = 166$ , 83%), GM recall crisis case (preventable crisis,  $n = 159$ , 79.5%), Obama Healthcare crisis case (accidental crisis,  $n = 111$ , 55.5%), Susan G. Komen crisis case (accidental crisis,  $n = 109$ , 54.5%), Target crisis case (accidental crisis,  $n = 72$ , 36%), EPA rumor case (victim crisis,  $n = 25$ , 12.5%), Navy shooting crisis case (victim crisis,  $n = 20$ , 10%), and Hurricane Sandy natural disaster (victim crisis,  $n = 14$ , 7%). Therefore, each of three preventable crisis cases received more publics' anger responses than each of three crisis cases in accidental crisis cluster, as well as the three crisis cases in victim crisis. In addition, publics expressed more anger responses in accidental crisis cases than in victim crisis cases. The results confirmed the findings of previous research that when people deemed the organizations intentionally caused a crisis, higher levels of anger would be elicited, compared to the perception that organizations were also the victims (Utz, Schultz, and Glocka, 2013).

#### Public's Sadness Response by Crisis Cluster (H2)

H2 predicted that publics would express more sadness in victim crisis than in preventable crisis and accidental crisis. According to the results, publics indeed expressed much more sadness in victim crisis than accidental crisis (95% CI [0.331, 0.412],  $p < .001$ ), and also more

than in preventable crisis (95% CI [0.333, 0.414],  $p < .001$ ). Therefore, the results revealed a statistically significant difference of sadness response in three different crisis clusters.

To be detailed, there were 234 sadness responses (39%, 95% CI [0.351, 0.429]) in victim crisis cases, while there were only 11 sadness responses (1.8%, 95% CI [0.008, 0.029]) in accidental crisis cases and 10 sadness responses (1.7%, 95% CI [0.006, 0.027]) in preventable crisis cases.

In three victim crisis cases, 148 (74%) sadness responses were expressed for the Navy shooting crisis case, followed by 72 (36%) sadness responses for Hurricane Sandy and 14 (7%) sadness responses for the EPA rumor. However, for each case in preventable and accidental crisis, sadness was rarely expressed. For three cases in accidental crisis, three (1.5%) sadness responses were expressed for the case of the Obama health care website; for the Susan G. Komen crisis case, five (2.5%) sadness responses were expressed and for the Target crisis, only three (1.5%) sadness responses were expressed. For the three cases in preventable crisis, seven (3.5%) sadness responses were expressed for the GM recall, three (1.5%) sadness responses were expressed for the Barilla crisis, while no sadness response was found for the Starbuck crisis case.

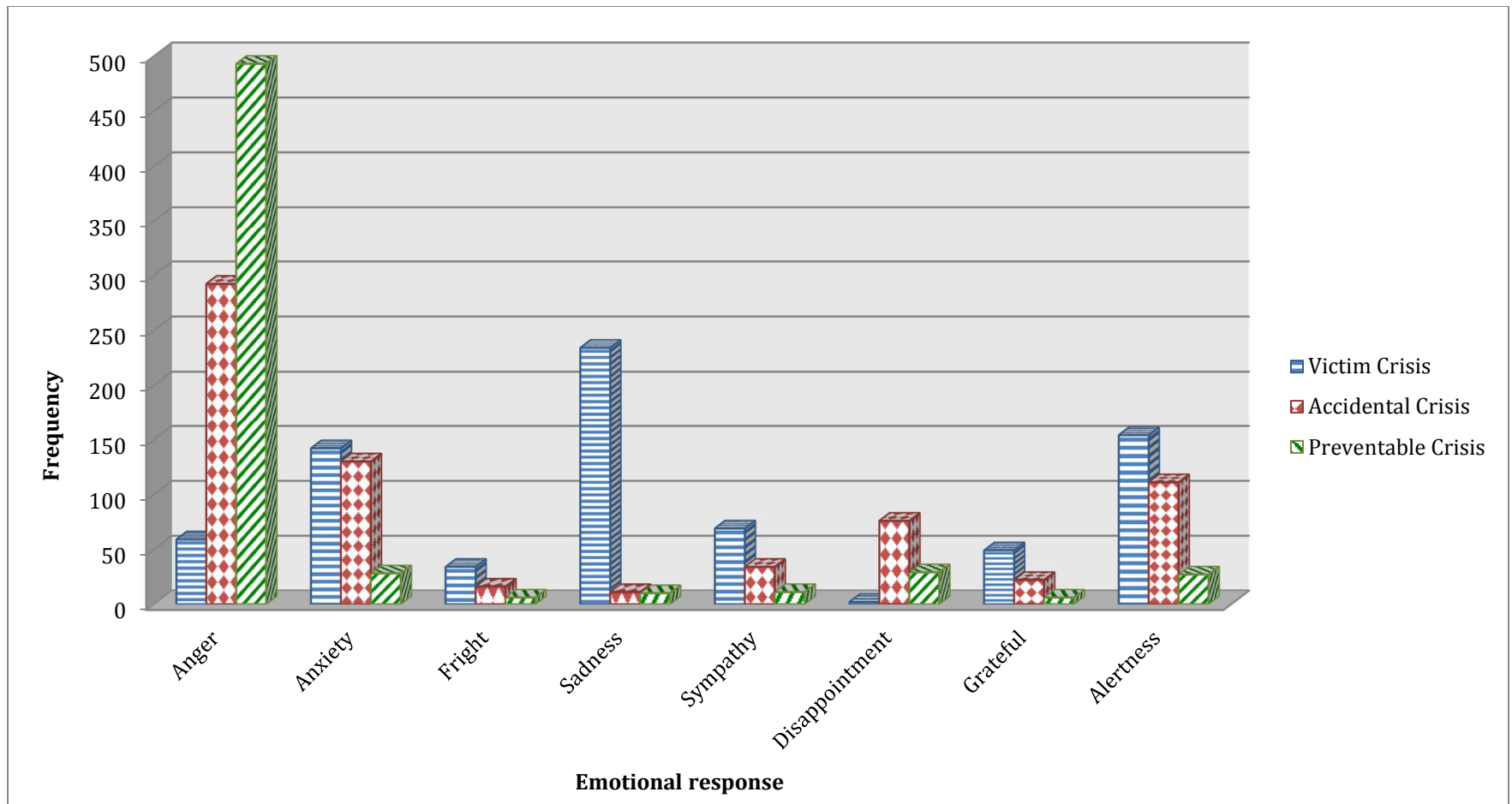
**Table 3.**

**95% Confidence Interval of Publics' Emotional Responses' Proportions' Difference in Three Crisis clusters**

Emotional Response	Victim & Accidental		Victim & Preventable		Accidental & Preventable	
	95% CI	p	95% CI	p	95 %CI	p
<b>Anger</b>	[-0.434, -0.342]	< .001	[-0.762, -0.685]	< .001	[-0.386, -0.285]	< .001
<b>Anxiety</b>	[-0.027, 0.067]	0.41	[0.152, 0.228]	< .001	[0.133, 0.207]	< .001
<b>Fright</b>	[0.008, 0.053]	< .001	[0.027, 0.067]	< .001	[0.002, 0.032]	0.03
<b>Sadness</b>	[0.331, 0.412]	< .001	[0.333, 0.414]	< .001	[-0.013, 0.017]	0.8
<b>Sympathy</b>	[0.027, 0.090]	< .001	[0.069, 0.124]	< .001	[0.017, 0.060]	< .001
<b>Disappointment</b>	[-0.150, -0.096]	< .001	[-0.063, -0.027]	< .001	[0.047, 0.110]	< .001
<b>Gratefulness</b>	[0.018, 0.072]	< .001	[0.048, 0.095]	< .001	[0.010, 0.044]	< .001
<b>Alertness</b>	[0.025, 0.118]	< .001	[0.173, 0.250]	< .001	[0.105, 0.175]	< .001

Note: Significant at the  $p < 0.05$  level

95% CI in this table refers to the confidence interval of proportions difference of one emotion in two different crisis clusters



**Figure 1.** Frequency Distribution of Publics' Emotional Responses by Crisis Cluster

**Table 4.**

**Publics Emotional Responses in Nine Crisis Cases**

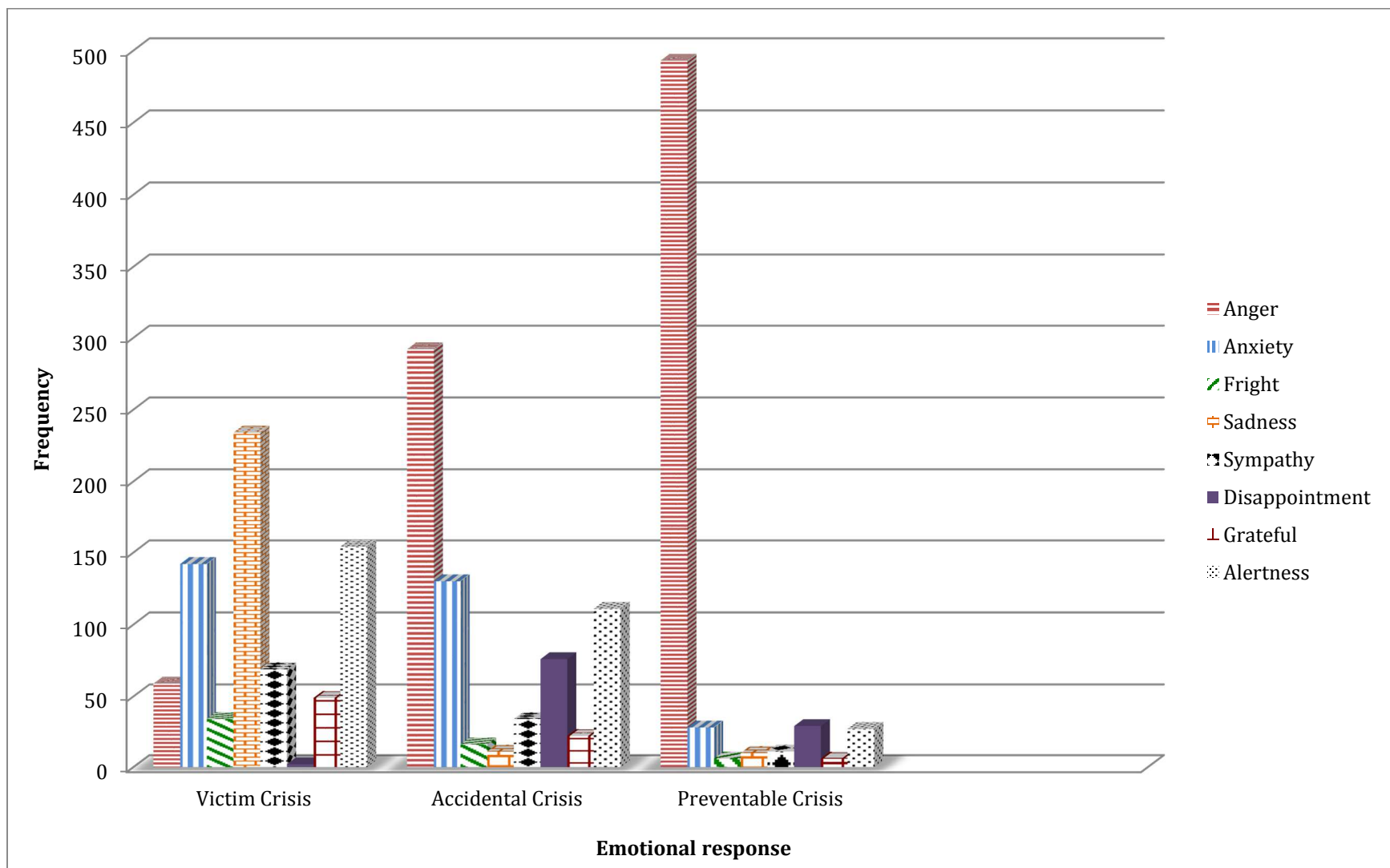
Emotional Response	Anger		Anxiety		Fright		Sadness		Sympathy		Disappointment		Gratefulness		Alertness		Total	
Crisis Case	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	N	%
<b>Victim Crisis</b>																		
Hurricane Sandy	14	(7)	53	(26.5)	5	(2.5)	72	(36)	11	(5.5)	1	(0.5)	36	(18)	45	(22.5)	237	(118.5)
Navy shooting	20	(10)	41	(20.5)	15	(7.5)	148	(74)	18	(9)	1	(0.5)	3	(1.5)	4	(2)	250	(125)
EPA rumor	25	(12.5)	48	(24)	14	(7)	14	(7)	40	(20)	0	(0)	10	(5)	105	(52.5)	256	(128)
<b>Accidental Crisis</b>																		
Obama Healthcare	111	(55.5)	32	(16)	2	(1)	3	(1.5)	2	(1)	5	(2.5)	3	(1.5)	35	(17.5)	193	(96.5)
Susan G.Komen	109	(54.5)	35	(17.5)	1	(0.5)	5	(2.5)	8	(4)	55	(27.5)	4	(2)	28	(14)	245	(122.5)
Target	72	(36)	63	(31.5)	13	(6.5)	3	(1.5)	24	(12)	16	(8)	15	(7.5)	48	(24)	254	(127)
<b>Preventable Crisis</b>																		
GM recall	159	(79.5)	28	(14)	5	(2.5)	7	(3.5)	4	(2)	5	(2.5)	5	(2.5)	10	(5)	223	(111.5)
Starbuck	166	(83)	0	(0)	0	(0)	0	(0)	3	(1.5)	14	(7)	0	(0)	11	(5.5)	194	(97)
Barilla	168	(84)	0	(0)	1	(0.5)	3	(1.5)	4	(2)	10	(5)	1	(0.5)	6	(3.0)	193	(96.5)
<b>Total</b>	844	(46.8)	300	(16.4)	56	(3.1)	255	(14.1)	114	(6.3)	107	(5.9)	77	(4.3)	292	(16.2)	2045	(113.6)

### Public's Most Frequently Expressed Emotion in Accidental Crisis Cluster (RQ1)

Overall, anger was the most frequently expressed emotion in both preventable crisis cluster and accidental crisis cluster, but publics express more anger in preventable crisis cluster than in accidental crisis cluster. In terms of all three crisis cases in accidental crisis cluster, anger was still the most frequently expressed emotion by publics ( $n = 292$ , 48.7%), 95% CI [0.447, 0.527]. Specifically, the Obama Healthcare crisis case held most anger ( $n = 111$ , 55.5%), followed by the Susan G. Komen crisis case ( $n = 109$ , 54.5%), and the Target crisis case ( $n = 72$ , 36%).

### Other Types of Emotions Expressed by Crisis cluster (RQ2)

RQ2 examined whether and what are other types of emotions expressed by publics in different crisis clusters. Overall, all eight emotions: anger, anxiety, fright, sadness, sympathy, disappointment, gratefulness and alertness were expressed by publics in all three crisis clusters (see Figure 2). Nonetheless, in each crisis cluster, the proportion of each emotion was found significantly different. Also, in accidental crisis and victim crisis, publics felt more various emotions than in preventable crisis. In preventable crisis, anger was the dominant emotion that occupied a great proportion of all emotions. For example, anxiety responses were not found in both Barilla and Starbuck crises; also publics did not express any fright, sadness, and gratefulness in the Starbuck crisis. However, in victim and accidental crises, all nine emotions were expressed by publics.



**Figure 2.** Publics' Emotional Responses in Each Crisis Cluster



### **RQ2-1: Other types of emotions expressed by publics in victim crisis cluster**

In the victim crisis cases, except for the most frequently expressed emotion (sadness), alertness was the second frequently expressed emotion. Among the three crisis clusters, alertness was more expressed in victim crisis than in accidental and preventable crisis. There were 154 alertness responses (25.7%, 95% CI [0.222, 0.292]) in victim crisis cases, 111 alertness responses in accidental crisis cases (18.5%, 95% CI [0.154, 0.216]), and only 27 alertness responses in preventable crisis cases (4.5%, 95% CI [0.028, 0.062]). Thus, there were significant difference of alertness between victim crisis and accidental crisis (95% CI [0.025, 0.118],  $p < .001$ ), between victim and preventable crisis (95% CI [0.173, 0.250],  $P < .001$ ) as well as between accidental and preventable crisis (95% CI [0.105, 0.175],  $p < .001$ ). Therefore, results showed that alertness was an important emotion that needed to be noticed in victim crisis.

Moreover, within crisis clusters, anxiety was also more frequently expressed in victim crisis cluster than in accidental or preventable crisis cluster. A total of 142 anxiety responses were found in victim crisis cluster (23.7%, 95% CI [0.203, 0.271]), 130 anxiety responses in accidental crisis cluster (21.7%, 95% CI [0.184, 0.250]), and only 28 anxiety responses in preventable crisis cluster (4.7%, 95% CI [0.030, 0.064]). Therefore, anxiety is also significantly differently expressed between victim and preventable crisis (95% CI [0.152, 0.228],  $p < .001$ ) and between accidental and preventable crisis (95% CI [0.133, 0.207],  $p < .001$ ); however, there was no significant difference of expressing anxiety between victim and accidental crisis (95% CI [-0.027, 0.067],  $p = 0.41$ ).

Sympathy also was expressed more in victim crisis than in other types of crisis: 69 (11.5%) in victim crisis cases, 34 (5.7%) in accidental crisis cases and 11 (1.8%) in preventable crisis cases. Similar to sympathy, fright and gratefulness were expressed more in victim crisis

than accidental crisis or preventable crisis. There are 34 fright responses in victim crisis, 16 and 6 fright responses respectively in accidental and preventable crisis. For gratefulness, this study found 49 (8.2%) in victim crisis, 22 (3.7%) in accidental crisis, and six (1%) in preventable crisis. According to these results, sadness, anxiety, alertness, sympathy, fright and gratefulness were emotions that are expressed at a greater extent in victim crisis cases than other crisis clusters. However, only sadness, anxiety and alertness were the top three frequently expressed emotions that occupy most proportions of all emotional responses. That is, although fright, sympathy and gratefulness also expressed more in victim crisis, they have much fewer frequencies than other top three emotions.

Overall, in victim crisis, sadness was most frequently expressed emotion. Anxiety and alertness were also two important and frequently expressed emotions among other emotions.

#### **RQ2-2: Other types of emotions expressed by publics in accidental crisis cluster**

As for accidental crisis cases, anger was the most frequently expressed emotion ( $n = 292$ , 48.7%, 95% CI [0.447, 0.527]), followed by anxiety ( $n = 130$ , 21.7%, 95% CI [0.184, 0.250]) and alertness ( $n = 111$ , 18.5%, 95% CI [0.155, 0.216]). Within types, anxiety and alertness were expressed more in accidental crisis than preventable crisis, but less expressed than victim crisis.

In addition, disappointment was much more expressed in accidental crisis than in preventable crisis or victim crisis. There were 76 disappointment emotional responses in accidental crisis (12.7%, 95% CI [0.1, 0.153]), 29 in preventable crisis cases (4.8%, 95% CI [0.031, 0.065]) and only two in victim crisis (0.3%, 95% CI [0.0004, 0.0119]). However, comparing with anger, anxiety and alertness, disappointment was not the major emotion in accidental crisis, which only has 79 responses. Sympathy, gratefulness, fright and sadness, were

much fewer expressed in accidental crisis cases, which had 34 (5.7%), 22 (3.7%), 16 (2.7%) and 11(1.8%) emotional responses respectively.

Therefore, the findings demonstrated that in accidental crisis cluster, anger was the most frequently expressed emotion; also anxiety and alertness were two major, frequently expressed emotions, which should not be neglected. Other emotions could be viewed as non-major emotions.

### **RQ2-3: other types of emotions expressed by publics in preventable crisis cluster**

Regarding the preventable crisis cases, anger was most frequently expressed emotion by publics and occupied a great proportion of all emotions (n = 493, 82.2%, 95% CI [0.791, 0.852]). Specifically, there were 168 (84%) anger responses for the Barilla case, 166 (83%) anger responses for the Starbuck crisis case and 159 (79.5%) anger responses for the GM recall crisis case. However, although publics also felt other types of emotions in preventable crisis, their proportions were small or minimal compared to anger. For example, there are 29 (4.8%) disappointment responses, 28 (4.7%) anxiety responses, 27 (4.5%) alertness responses, 11 (1.8%) sympathy responses, 10 (1.7%) sadness responses, six (1%) fright responses and six (1%) gratefulness responses. Thus, all other seven emotions could be viewed as non-major emotion in preventable crisis cases.

## CHAPTER 5

## DISCUSSION

This study attempted to understand crisis from the perspectives of the publics and aimed to identify publics' different emotional responses by three clusters of crises by empirically analyzing publics' postings online. The current investigation revealed that publics indeed felt different emotions in different crisis clusters, and experienced different dominant emotions. In this study, in all three preventable crisis cases, anger was the dominant emotion that publics expressed. One of the reasons is the level of attribution of crisis responsibility. When making attributions, publics will feel diverse emotional reaction to the crisis including anger, fear, sadness, contempt, sympathy and relief (Choi & Lin, 2009). In preventable crisis cases, publics usually attribute a higher level of responsibility to the organization associated with the crisis, which could elicit more anger responses. In all three preventable crises cases used in this study, it is evident that the causes of the crises are internal, and organization knowingly took inappropriate actions, thus creating an intense negative emotion as anger among the publics. In addition, the results showed that negative emotions, such as disappointment and anxiety, were also expressed by publics in the preventable crisis cases.

The findings showed that although anger was the most frequently expressed emotion in accidental crisis, publics expressed less anger in accidental crisis than in the preventable crisis. It is possible that in the case of accidental crisis, people placed less responsibility to the organization and elicited other major emotions, such as anxiety and alertness. Specifically, publics experience more anxiety in victim crisis and accidental crisis than in preventable crisis. It may be caused by publics' uncertainty of the crisis situation. If publics know that the organization only undertook a minimal responsibility of the crisis, then there are many other

factors that publics and even the organization are not aware of or are not able to control. As a result, publics may feel more anxiety in the accidental crisis cases. Similarly, the current study revealed that publics also felt more anxiety in victim crisis cases than the preventable crisis cases, because in victim crisis, it is the external factor that causes the crisis, not the internal, controllable factor. Thus, more anxiety responses were elicited because of publics' uncertainty, confusion and concern of the crisis situation.

Furthermore, different from the preventable crises and accidental crises, publics felt much more sadness and expressed more alertness than anger in victim crisis. One of the possible explanations for this finding is that the victim crisis has very weak attributions of crisis responsibility to the given organization. The organization is also viewed as "victims of the crisis", and the crisis is deemed caused by external forces that were beyond management's control (Coomb, Hazleton, Holladay & Chandler, 1995). Therefore, anger was much less expressed, but emotional responses related to sadness were highly elicited for the victims of the crisis, and even for the organization that also suffered from the crisis. In addition, when publics felt uncertain and uncontrolled about a crisis, they may be more likely to express alertness rather than anger to help others better understand and prepare for the current crisis. Thus, alertness was also frequently expressed emotion in victim crisis than other crisis clusters.

In sum, the findings of this study are consistent with the predictions based on the Integrated Crisis Mapping (ICM) model. ICM model found that anger was the dominant emotion in reputation, technology breakdown, industrial matters, regulation/legislation, security issue, and human resource. Similarly, in the current study, anger was the most frequently expressed emotion in the preventable and accidental crisis cases: Barilla crisis (human resource), Starbuck

crisis (regulation/legislation), GM recall crisis (industrial matters), Obama Healthcare crisis (technology breakdown), Susan G. Komen crisis (reputation) and Target crisis (security issue).

However, there exist different findings compared with the ICM model. For the ICM model, Jin, Pang and Cameron (2012) found that sadness and fight were the dominant emotions in natural disasters. This study also found that sadness was the most frequently expressed emotion in victim crises. However, it did not find fright as one of the dominant emotions in victim crisis cases. Although fright was expressed more by publics in victim crisis than in preventable or accidental crisis, fright was not the dominant emotion in victim crisis cases. There were only 2.5% ( $n = 5$ ), 7.5% ( $n = 15$ ) and 7% ( $n = 14$ ) of messages expressed in hurricane sandy, Navy shooting and EPA rumor cases, respectively. On the contrary, alertness ( $n = 154$ , 25.2%, 95% CI [0.222, 0.292]) was found as a major emotion that publics expressed in victim crisis case: 22.5% in hurricane crisis and 52.5% in EPA rumor crisis.

One of the possible reasons why this study did not find fright as the dominant emotion in victim crisis is the characteristic of the crisis cases used in this study. This study used hurricane sandy as an example of natural disaster, the EPA spy rumor as an example of crisis generated by rumor, and shooting at D.C Navy Yard as an example of workplace violence. These three crisis cases are different from the crisis cases that Jin, Pang and Cameron (2012) used (US Airways' takeover bid of Delta Air Lines, American deals with power outages, BP refinery blast). Although these cases all belong to the same victim crisis cluster, but due to the differences in crisis situations, organization's different levels of control and management, publics' awareness of the crisis, and threats associated with physical and financial assets, publics would have different risk perceptions. Therefore, different crisis cases may result in different results, and publics' fright responses may be different case by case.

In addition, this study collected the data from publics' postings on Facebook and websites, while Jin, Pang and Cameron (2012) collected the data from articles about the chosen crises published in national newspapers. It is possible that publics do not like to express their fright through online postings, but likely to express their fright when they were depth interviewed. Thus, more frights found in Jin's finding. Different data sources would generate different results, which may be another reason that fright did not found as a dominant emotion in this study.

Lastly, there are also some differences in different cases that belong to the victim and accidental crisis cluster. In victim crisis, sadness is the most frequently expressed emotion in both Hurricane Sandy and Navy shooting cases, while alertness is the most frequently expressed emotion in the EPA rumor case. It is possible that both Hurricane Sandy and Navy shooting are crisis cases involved more victims, death, people who are injured or going through a miserable pain. Publics indeed have financial or emotional loss during the crisis. However, the EPA rumor does not cause publics' actual harm or threat publics' physical or financial assets. It is just a rumor that destroys government's reputation. Thus, publics may express more alertness rather than sadness in the EPA rumor. In accidental crisis, there is no difference in its most frequently expressed emotion — anger, but disappointment is much more expressed to the Susan G. Komen's financial plan crisis. This may be caused by publics' high expectations to Susan G. Komen. As a non-profit organization, Susan G. Komen is the most widely known, largest-funded breast cancer organization in the United States. According to the Harris Interactive 2010 annual brand equity poll, Komen was one of the most trusted non-profit organizations in America. However, its plan to cut off the financial support to Planned Parenthood and other improper use of donor funds led to a dramatic decline in donations and publics' support, which greatly impaired Komen's reputation. Thus, higher expectations to Komen may be the reason that why

disappointment was expressed more in the Komen's case than other cases in accidental crisis cluster. In preventable crisis, since anger is the dominant emotion in each three crisis cases, there is no noticeable difference among the three cases.



## CHAPTER 6

## IMPLICATIONS AND LIMITATIONS

This study proposes a theoretical framework of publics' emotional responses in different crisis clusters, and the findings are aligned with the proposed framework. First, the results are in line with Jin's (2009) finding that discrete emotions are indictable and distinguishable in crises, and "strategic publics can be segmented and identified not only by issues but also by their emotional responses" (p. 132). This study's results are also consistent with Jin, Pang and Cameron's revised ICM model (2012) in that anger is the dominant emotion in the preventable crises, while sadness is the most frequently emotion in the victim crises. This study advances the ICM model by taking a more systematic approach to crisis situations and the emotional responses each crisis cluster elicits from the publics. This study's findings confirmed that different emotions are expressed depending on different crisis clusters, thus providing a more effective approach to develop the responses strategies based on an emotional perspective, considering both crisis cluster and public's emotional response. Therefore, this study provides both researchers and PR practitioners with clearer directions and insights for practice.

Secondly, this study validates and advances the SCCT by demonstrating the different levels of responsibility in inducing publics' different emotions in crises. Based on the situational perspective that offered by SCCT, this study also incorporates emotional perspective into SCCT to investigate how different emotions elicited by different crisis situations. The findings show under which crisis situations, what levels of responsibility, what emotions that public may feel and express. Also, this study proves that the guidelines of the SCCT are crucial in crisis communication. Relatedly, the findings emphasize the importance of emotions in the SCCT and suggest that public relations managers should take publics' emotional reactions seriously to

protect their organizations' reputation. Therefore, organizations should pay attention to differentiating between stakeholder groups based on their crisis involvement, as well as emotional responses to crisis.

Thirdly, the current study employs three crises cases in all three crisis clusters, which had more diverse crisis contexts. Therefore, the findings provide practical implications for practitioners to better deal with different crisis situations by selecting more appropriate crisis response strategies. For example, in a preventable crisis where publics may attribute a higher level of attribution to organization, the organization should know that anger would be the dominant emotion that publics feel. Thus, practitioners need to design a response strategy that focuses on pacifying publics' anger at the beginning of a crisis, rather than just offering information or compensation. On the other hand, in a victim crisis where the organization is deemed to take very weak attributions of crisis responsibility, sadness is likely to be the dominant emotion that publics feel. Thus, practitioners need to design a response strategy that focuses on the relief and well-being of victims. For accidental crisis, although anger is still the most frequently expressed emotion, there still exist other major emotional responses. Thus, public's emotional responses may be complex and could vary case by case in accidental crisis. Therefore, in accidental crisis situation, crisis communication may require practitioners' professional expertise and experience to predict publics' reaction and develop an effective plan to repair company's reputation. The most appropriate response strategy in accidental crisis needs to combine both the strategy used in preventable crisis and victim crisis.

For instance, JetBlue's operations collapsed after an ice storm in 2007, which led to 1,000 canceled flights in five days, stranding passengers on planes and in airports. JetBlue's CEO, David Neeleman, never blamed the weather. He apologized, and wrote a public letter of

apology to JetBlue customers, introduced a customer's bill of rights, and presented a detailed list, which included a monetary compensation of what the company would do to help all the affected passengers. When the backlash persisted, he took the company's message to YouTube, the Today Show, Late Show with David Letterman, and Anderson Cooper 360°, in order to apologize for his company's faults, not plead his case. All these public relations efforts led JetBlue to regain much of its reputation.

This crisis could be classified as a victim crisis, because the canceled flights were not due to JetBlue's fault, but caused by the weather, so JetBlue can also be considered as a victim of the weather. Therefore, in order to deal with this situation, JetBlue's CEO offered information to relief affected customers, and also provided compensation to concern public's well-being. On the other hand, this crisis can actually also be viewed as a preventable crisis. Due to JetBlue's operation collapse, many affected customers had to toil in airports for nearly a week, which suggests that JetBlue still had a high responsibility of this crisis. Thus, by predicting that public will express anger toward the firm, JetBlue's CEO took a series of steps to provide sincere apologies to that can pacify publics' anger at the beginning of the crisis and prevent further backfire from the publics. Overall, JetBlue not only wrote a public letter of apology to take publics' anger emotional responses into consideration, but also kept posting the information and offered a compensation plan to the affected customers that focus on relief and the well-being of victims. JetBlue's a series of crisis communication showed that in some complex situations, it is necessary to combine both victim crisis response strategy and preventable crisis response strategy to efficiently reduce the level of the reputational threat in a crisis.

Furthermore, researchers in crisis communication have called for more empirical research to investigate how to use emotion appeals to obtain more favorable responses from publics (e.g.,

Fediuk et al., 2010, Jin, 2013). This study's findings provide practitioners guidance about how to employ emotional appeals in crisis response strategies in crisis communication. For instance, if publics' dominant emotion is anger, practitioners should not focus on incorporating intensive emotional appeals, which could backfire on organization and exacerbate publics' negative reactions. Providing compensation and sparingly emotional appeals are more effective. However, if sadness and sympathy are the major emotions that publics feel, practitioners need to incorporate intensive emotional appeals into organization's response strategies to better provide relief and comfort publics before providing compensation plan.

Finally, this study found that there exist more major emotions in accidental crisis than in preventable crisis. Anxiety and alertness were found as the frequently expressed emotions in accidental crisis, whereas anger is the only dominant emotion in preventable crisis. Disappointment is also found to be expressed more in accidental crisis than other crisis clusters. These findings suggest that people actually feel more complex emotions in accidental crisis, which poses challenges to an organization. Thus, in accidental crisis, although anger is the most frequently expressed emotion, other existing emotions may also highly influence publics' interpretation of a crisis. In other words, other major emotions expressed in accidental crisis could not be neglected by an organization, because this kind of emotions is difficult to be predicted and managed. Also, it is difficult for an organization to predict what results would be caused by these erratic emotions. Therefore, these findings encourage PR practitioners to develop organization's responses strategy by not only focusing on pacifying publics' anger in an accidental crisis, but also taking other emotions into account.

#### Limitations and Suggestions for Future Research

Although this study fills a gap in previous research and frameworks by examining the

different emotional responses, there are limitations that need to be addressed. Firstly, this study employed only three crisis cases in each crisis cluster, which limits the generalizability of the findings. Also, the crisis cases that were selected by the author do not represent the various types of crisis in three crisis clusters, which also may influence the results. Future research could employ more classical cases in each crisis cluster to better validate the findings of this study.

Secondly, the sample of this study is 1,800 postings that were mainly collected from organizations' official Facebook page and their official websites. The choice of two major platforms excluded other media platforms that also provide publics' emotional responses. Thus, including a more diverse media outlets may produce different results. Future research may incorporate both mainstream media and social media platforms to further investigate publics' emotions. Also, interviews or focus groups with publics may help to provide an in-depth understanding of publics' emotional responses.

Thirdly, publics' different emotional responses may not only be determined by different crisis clusters and initial crisis responsibility. Other factors may also influence publics' emotional responses, such as organization response strategy, organization crisis history and prior relational reputation. Thus, future research should also take these factors into consideration to find out whether publics emotional responses to certain crisis cluster may vary in different response strategies, crisis history, and prior relational reputation of an organization.

Moreover, this study examined eight emotions that have been viewed as frequently experienced emotions in different crisis situations. How these eight emotions differently influence publics' perceptions of organization and publics' behavior intention is out of the scope of this study and thus is not explored. Future studies need to examine what and how different emotions differently influence organization's reputation and publics' behavior intention. This

will help organizations and PR practitioners better develop corporate responses and use emotion appeals to protect organizations' reputation.

Last but not least, publics' emotional responses are not constant during a crisis, but dynamic, which may be influenced and changed by many other factors. Different emotions would be experienced by publics at different crisis stages. From the first stage when a crisis happens and publics become aware of the crisis situation, to the second stage that publics start to respond and take actions for a crisis, to the third stage that an organization engages in handling, addressing and managing a crisis, and finally to the stage that a crisis dies out, publics would not express only one type of emotion. Also, during this period of crisis being unfolded, publics' emotional responses would be greatly affected by many other influential factors, such as organization's responses, word of mouth communications and reports from other mainstream media. For instance, when a crisis occurs, publics' firstly emotional reaction to a crisis is fright and anger. However, after media's positive reporting of the crisis, and the dissemination of information and knowledge of the crisis, publics' negative emotional responses may be reduced. In addition, more favorable emotions could be expressed if an organization properly addresses and handles the crisis situation at the same time. Nonetheless, due to the scope of this research, the dynamic process of changes in publics' emotional responses is not investigated. Future research needs to conduct a longitudinal study to further examine how publics' emotional responses vary and are affected by corporate responses, use of emotional appeals, media framing and other influential factors.

## REFERENCES

- An, S., & Gower, K. K. (2009). How do the news media frame crises? A content analysis of crisis news coverage. *Public Relations Review*, 35, 107-112.
- An, S., Gower, K. K., & Cho, S. H. (2011). Level of crisis responsibility and crisis response strategies of the media. *Journal of Communication Management*, 15(1), 70-83.
- Barton, W. L. (2001). *Crisis in organizations II* (2nd ed.). Cincinnati, OH: College Divisions South-Western.
- Benoit, W. L. (1997). Image repair discourse and crisis communication. *Public Relations Review*, 23, 177-180.
- Benoit, W. L. (2005). Image restoration theory. In R. L. Heath (Ed.), *Encyclopedia of Public Relations: Volume 1* (pp. 407-410). Thousand Oaks, CA: SAGE.
- Benson, J. A. (1988). Crisis revisited: An analysis of the strategies used by tylenol in the second tampering episode. *Central States Speech Journal*, 38, 49-66.
- Cameron, G. T., Pang, A., & Jin, Y. (2008). Contingency. In T. Hansen-Horn & B. Neff (Eds.), *Public relations: From theory to practice* (pp. 134-157).
- Cho, S. H., & Gower, K. K. (2006). Framing effect on the public's response to crisis: Human interest frame and crisis type influencing responsibility and blame. *Public Relations Review*, 32, 420-422.
- Choi, Y., & Lin, Y.-H. (2009). Consumer responses to Mattel product recalls posted on online bulletin boards: Exploring two types of emotion. *Journal of Public Relations Research*, 21(2), 198-207.
- Coombs, W. T. (1995). Choosing the right words: The development of guidelines for the selection of the "appropriate" crisis-response strategies. *Management Communication Quarterly*, 8(4), 447-476.
- Coombs, W. T. (2004). A theoretical frame from post-crisis communication: Situational Crisis Communication Theory. In M. Martinko (Ed.), *Attribution theory in the organizational sciences: Theoretical and empirical contributions* (pp. 275-296). Greenwich, CT: IAP-Information Age Pub.
- Coombs, W. T. (2007a). Attribution theory as a guide for post-crisis communication research. *Public Relations Review*, 33, 135-139.
- Coombs, W. T. (2007b). Protecting organization reputations during a crisis: The development and application of situational crisis communication theory. *Corporate Reputation Review*, 10, 163-176.

- Coombs, W. T. (2010). Parameters for crisis communication. In W. T. Coombs & S. J. Holladay (Eds.), *The handbook of crisis communication* (pp. 65-90). Malden, MA: Blackwell.
- Coombs, W. T., & Holladay, S. J. (1996). Communication and attributions in a crisis: An experimental study of crisis communication. *Journal of Public Relations Research*, 8, 279–295.
- Coombs, W. T., & Holladay, S. J. (2002). Helping crisis managers protect reputational assets: Initial tests of the situational crisis communication theory. *Management Communication Quarterly*, 6, 165–186.
- Coombs, W. T., & Holladay, S. J. (2005). An exploratory study of stakeholder emotions: Affect and crises. *Research on Emotion in Organizations*, 1, 263–280.
- Coombs, W. T., Fediuk, T., & Holladay, S. J. (2007). Further explorations of post-crisis communication and stakeholder anger: The negative communication dynamic model. Paper presented at the 10th International Public Relations Research Conference, South Miami, FL, USA.
- Coombs, W. T., & Holladay, S. J. (2004). Reasoned action in crisis communication: An attribution theory- based approach to crisis management. In D. P. Millar & R. L. Heath (Eds.), *Responding to crisis: A rhetorical approach to crisis communication* (pp. 95-115).
- Coombs, W. T., & Holladay, S. J. (2005). Exploratory study of stakeholder emotions: Affect and crisis. In N. M. Ashkanasy, W. J. Zerbe, & C. E. J. Hartel (Eds.), *Research on emotion in organizations: Volume 1: The effect of affect in organizational settings* (271-288). New York: Elsevier.
- Dillard, J. P. (1997). The role of affect in communication, biology, and social relationships. In P. R. Andersen & L. Guerrero (Eds.), *Communication and emotion* (pp. xvii-xxxii). San Diego, CA: Academic Press.
- Egelhoff, W. G., & Sen, F. (1992). An information- processing model of crisis management. *Management Communication Quarterly*, 5(4): 443–484.
- Fombrun, C. J., & van Riel, C. B. M. (2003). *Fame & fortune: How successful companies build winning reputations*. New York: Prentice Hall Financial Times.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13, 172–175.
- Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crises? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. *Journal of Personality and Social Psychology*, 84, 365–376.



- Harvey, J. H., Ickes, W. J., & Kidd, R. F. (1976). *New directions in attribution research* (Vol. 1). Hillsdale, NJ: Lawrence Erlbaum.
- Heath, R., & Millar, D. (2004). A rhetorical approach to crisis communication: Management, communication processes, and strategic responses. In D. P. Millar & R. L. Heath (Eds.), *Responding to crisis: A rhetorical approach to crisis communication*. Mahwah, NJ: Lawrence Erlbaum.
- Holladay, S. J. (2009). Crisis communication strategies in the media coverage of chemical accidents. *Journal of Public Relations Research*, 21, 208-217.
- Huang, Y. H. (2006). Crisis situation, communication strategies, and media coverage: A multicase study revisiting the communicative response model. *Communication Research*, 33, 180-205.
- Izard, C. E. (1977). *Human emotions*. New York: Plenum.
- Jin, Y. (2009). The effects of public's cognitive appraisal of emotions in crises on crisis coping and strategy assessment. *Public Relations Review*, 35(3), 310-313.
- Jin, Y., Pang, A., & Cameron, G. T. (2007). Integrated crisis mapping: Towards a publics-based, emotion-driven conceptualization in crisis communication. *Sphera Publica*, 7, 81-96.
- Jin, Y., Pang, G., & Cameron, G. T. (2010). Toward a publics-driven, emotion-based approach in crisis communication: Testing the integrated crisis mapping (ICM) model. *Public Relations Journal*, 4(1).
- Jin, Y., Pang, G., & Cameron, G. T. (2012). Toward a Publics-Driven, Emotion-Based Conceptualization in Crisis Communication: Unearthing Dominant Emotions in Multi-Staged Testing of the Integrated Crisis Mapping (ICM) Model. *Journal of Public Relations Research*, 24: 266-298.
- Jin, Y., Liu, B. F., & Austin, L. (2014). Examining the role of social media in effective crisis management: The effects of crisis origin, information form, and source on publics' crisis responses. *Communication Research*, 41, 74-94.
- Jin, Y., Liu, B. F., Anagondahalli, D., & Austin, L. (2014). Scale development for measuring publics' emotions in organizational crises. *Public Relations Review* 40(2014), 509-518
- Johnson, E. J., & Tversky, A. (1983). Affect, generalization, and the perception of risk. *Journal of Personality and Social Psychology*, 45, 20-31.
- Jorgensen, B. K. (1994). Consumer reaction to company-related disasters: The effect of multiple versus single explanations. *Advances in Consumer Research*, 21, 348-352.

- Jorgensen, B. K. (1996). Components of consumer reaction to company-related mishaps: A structural equation model approach. *Advances in Consumer Research*, 23, 346–351.
- Joslyn, H. (2010, March 4). Two Health Charities Rank as America's Most Trusted Nonprofit Brands. *Philanthropy.com*. Retrieved from <https://philanthropy.com/article/Two-Health-Charities-Rank-as/161241>
- Kim, J., Kim, H., & Cameron, G. (2009). Making nice may not matter: The interplay of crisis type, response type and crisis issue on perceived organizational responsibility. *Public Relations Review*, 35(1), 86-88.
- Kim, H. K., & Niederdeppe, J. (2013). The Role of Emotional Response during an H1N1 Influenza Pandemic on a College Campus. *Journal of Public Relations Research*, 25: 30–50.
- Kim, H. J., & Cameron, G. T. (2011). Emotions Matter in Crisis: The Role of Anger and Sadness in the Publics' Response to Crisis News Framing and Corporate Crisis Response. *Communication Research*, 38(6), 826–855.
- Lee, K. (2004). Audience-oriented approach to crisis communication: A study of Hong Kong consumers' evaluation of organizational crisis. *Communication Research*, 31, 600-618.
- Lerner, J. S., & Keltner, D. (2000). Beyond valence: Toward a model of emotion-specific influences on judgment and choice. *Cognition and Emotion*, 14, 473-493.
- Lerner, J. S., & Tiedens, L. Z. (2006). Portrait of the angry decision maker: How appraisal tendencies shape anger's influence on cognition. *Journal of Behavioral Decision Making*, 19, 115-137.
- Lewis, Michael. *Shame: the exposed self*. New York: Free Press; 1992. 10
- Lowenstein, G. F., Weber, E. U., Hsee, C. K., & Welch, E. S. (2001). Risk as feelings. *Psychological Bulletin*, 127, 267–286.
- Malhotra, N., & Kuo, A. G. (2009). Emotions as moderators of information cue use: Citizen attitudes towards Hurricane Katrina. *American Politics Research*, 37, 301-326.
- McDonald, L. M., Sparks, B., & Glendon, A. I. (2010). Stakeholder reactions to company crisis communication and causes. *Public Relations Review*, 36, 263–271.
- Mitroff, I. I. (2003). *Crisis leadership: Planning for the unthinkable*. New York: Wiley.
- Mitroff, I. I., & Alpasian, M. C. (2003). Preparing for evil, *Harvard Business Review*, 81(4), 109– 115.

- Mitroff, I. I., & Anagnos, G. (2001). Managing crises before they happen: What every executive and manager needs to know about crisis management. Chicago: AMACOM.
- Morris, M. W., Moore, P. C., & Sim, D. L. H. (1999). Choosing remedies after accidents: Counterfactual thoughts and the focus on fixing "human error." *Psychonomic Bulletin & Review*, 6, 579-585.
- Nabi, R. L. (2002). Anger, fear, uncertainty, and attitudes: A test of the cognitive-functional model. *Communication Monographs*, 69, 204-216.
- Nabi, R. L. (2003). Exploring the framing effects of emotion: Do discrete emotions differentially influence information accessibility, information seeking, and policy preference? *Communication Research*, 30, 224-247.
- Nabi, R. L. (2007). Emotion and persuasion: A social cognitive perspective. In D. R. Roskos-Ewoldsen & J. Monahan (Eds.), *Social cognition and communication: Theories and methods* (pp. 377-398). Mahwah, NJ: Erlbaum.
- Neuendorf, K. (2002). *The content analysis guidebook*. Thousand Oaks, CA; Sage.
- Park, S. (2008). Consumer health crisis management: Apple's crisis responsibility for iPod-related hearing loss. *Public Relations Review*, 34, 396-398.
- Park, S., & Len-Rios, M. (2010). Who suffers? The effect of injured party on attributions of crisis responsibility. In W. T. Coombs & S. J. Holladay (Eds.), *The handbook of crisis communication* (pp. 591-606). Malden, MA: Blackwell.
- Petty, R. E., Fabrigar, L. R., & Wegener, D. T. (2003). Emotional factors and attitudes and persuasion. In R. J. Davidson, K. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective science* (pp. 752-772). Oxford, UK: Oxford University Press.
- Plutchik, R. (1980). *Emotion: A psychoevolutionary synthesis*. New York: Harper and Row.
- Reason, J. (1999). *Human error*. New York: Cambridge University Press.
- Rosselli, F., Skelly, J. J., & Mackie, D. M. (1995). Processing rational and emotional messages: The cognitive and affective mediation of persuasion. *Journal of Experimental Social Psychology*, 31, 163-190.
- Seeger, M. W.; Sellnow, T. L.; Ulmer, R. R. (1998). "Communication, organization, and crisis". *Communication Yearbook* 21: 231-275.
- Semetko, H. A., & Valkenburg, P. M. (2000). Framing European politics: A content analysis of press and television news. *Journal of Communication*, 50(2), 93-109.
- Scherer, K. R. (1999). Appraisal theory. In T. Dalgleish & M. Power (Eds.), *Handbook of cognition and emotion* (pp. 637-663). New York: Wiley.

- Scherer, K. R., Schorr, A., & Johnstone, T. (2001). *Appraisal processes in emotion: Theory, methods, research*. New York: Oxford University Press.
- Shaver, K. G. (1985). *The attribution of blame: Causality, responsibility, and blameworthiness*. Springer, NY: Verlag.
- Smith, B. A., Dillard, J. P. (1997, November). Affect and persuasion: Evidence for cognitive coloration of message production. Paper presented at the annual meeting of the National Communication Association, Chicago.
- Solomon R.C. (1993). *The Passions: Emotions and the Meaning of Life*. Hackett Publishing.
- Tiedens, L. Z., & Linton, S. (2001). Judgment under emotional certainty and uncertainty: The effects of specific emotions on information processing. *Journal of Personality & Social Psychology*, 81, 973-988.
- Utz, S., Schultz, F., & Glocka, S. (2013). Crisis communication online: How medium, crisis type and emotions affect public reactions in the Fukushima Daiichi nuclear disaster. *Public Relations Review*, 39, 40–46.
- Weiner, B. (2006). *Social motivation, justice, and the moral emotions: An attributional approach*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York: Springer-Verlag.
- Weiner, B. (1995). *Judgments of responsibility: A foundation for a theory of social conduct*. New York: Guilford.
- Zaremba, A. J. (2010). *Crisis communication theory and practice*. New York, NY: Armon

## APPENDIX A

### NINE CRISIS CASES UESED IN THIS STUDY

Crisis Case	Crisis Cluster	Organization's Response	Publics' Response	Time
<b>1. Hurricane Sandy</b> (also unofficially known as " <i>Superstorm Sandy</i> ") was the deadliest and most destructive hurricane of the 2012 Atlantic hurricane season, as well as the second-costliest hurricane in United States history.	Victim (natural disaster)	Rebuild	400 comments on Federal Emergency Management Agency Facebook page	October 2012
<b>2. Gunman and 12 Victims Killed in Shooting at D.C. Navy Yard (Naval Sea Systems Command)</b> A gunman who had been discharged by the Navy in 2011 after what an official described as a "pattern of misconduct" staged a two-hour rampage Monday at the Washington Navy Yard, killing 12 people before being shot to death by law enforcement officials.	Victim (workplace violence)	Rebuild	1000 comments on mainstream media	September 2013

<b>4. The Obamacare website</b> The healthcare exchange website that would allow users to shop for different health insurance options. Unfortunately, the site was plagued by serious technology problems from its inception on 1 October 2013, resulting in just 700,000 people making applications in the first month. The technological problems were compounded by communications issues.	Accidental (Technical-error accident & challenge)	Rebuild	13600 comments on Obamacare official Facebook page	October 2013
<b>5. Susan G. Komen for the cure</b> In January of 2012, the largest breast cancer advocacy organization in the US, announced plans to cut off its financial support to Planned Parenthood's women's health initiatives. That decision triggered a firestorm of criticism, first in social media and then in the mainstream press as the group found itself caught between pro-choice and anti-abortion groups	Accidental (Challenge: Stakeholders claim an organization is operating in an inappropriate manner)	Rebuild	13, 000 comments on Susan G. Komen official Facebook page	January 2012
<b>6. Target credit card hacker</b> At least 70 million people had their financial information, credit card information, and personal data stolen due to a security breach at Target on January 2014.	Accidental (Technical-error accident)	Rebuild	3000 comments on Target official Facebook page	January 2014

<b>7. GM Recall</b> General Motors waited until 2014 (3.17) to deal with a faulty switch problem that the automaker knew about since 2001. The delay resulted in deaths and waves of negative publicity.	Preventable (Human-error product harm)	Rebuild	400 comments on GM official Facebook page	March 2014
<b>8. Starbucks dodge UK taxes</b> Starbucks had sales of £400m in the UK last year, but paid no corporation tax. It transferred some money to a Dutch sister company in royalty payments, bought coffee beans from Switzerland and paid high interest rates to borrow from other parts of the business.	Preventable (stakeholders are deceived without injury)	Rebuild	3000 comments on Starbucks official Facebook page	December 2012
<b>9. Barilla chief executive Guido's remarks about gay marriage</b> Barilla made his belief in traditional family remarks—"I would never make a spot with a homosexual family... [My idea of] family is a classic family where the woman has a fundamental role.... If they like our pasta and our communication, they can eat them. Otherwise, they can eat another pasta."—in September of last year. Barilla quickly issued a video apology.	Preventable (human-error accident)	Rebuild	Facebook: over 15,000 comments	September 2013

## APPENDIX B

### CODING SHEET FOR CONTENT ANALYSIS OF PUBLICS' POSTINGS

Emotion Type	Coding Rule	Example
<b>Anxiety</b>	<p>Publics' postings display their unpleasant feelings of dread over anticipated events, including worry, apprehension and uneasiness about future uncertainties. Publics express their intense desire and eagerness, such as their demands of help, needs of more information and answers. Also, publics may show they have insufficient coping skills with the crisis.</p> <p>Eg., trouble, worry, concern, nervousness, restiveness, "any tips?"</p>	<ol style="list-style-type: none"> <li>1. In the Obamacare website case: "I live in Florida have tried to fill my request to comply with the law and the system does not work. I want to have the opportunity to have the health plan but the system will not allow it. What can I do?"</li> <li>2. In the Target credit card case: "I still can't get through to the hotline and my email, which promised a response within 24 hours, has gone UNANSWERED! Any tips for me?!!"</li> <li>3. Target credit card case: "Where am I missing this? Where was it reported that online shopping was compromised too?"</li> </ol>



<p><b>Anger</b></p>	<p>Publics' postings display a strong feeling of displeasure, belligerence and hostility aroused by a wrong; wrath; ire. Express their boycott intention, strongly disagreement of what organization has contend, or what organization has done. Also, some rhetorical questions show publics' anger. Anger usually related to an issue of blaming an organization's harmful actions.</p> <p>Eg., mad, rage, fault, ridiculous, scam, lie, sucks, shame, mess up</p>	<ol style="list-style-type: none"> <li>1. In the obamacare website case: "What is going on????? Are you seriously going to take people's drivers licenses away, levy their accounts and put a lien on their homes if we can't afford Obamacare? I work a minimum wage job... I am so angry right now...."</li> <li>2. In the Target credit card case: "Dear target. I just shared the post that you had saying if I shared it I would be prompted to receive a 250\$ gift card. Well, wasn't prompted to anything. Needless to say didn't receive any gift card. You would think that with all your recent bad publicity that you wouldn't want anymore bad pr. Unfortunately you just have another angry customer now instead of a gratefulness customer."</li> <li>3. In the Hurricane Sandy disaster: "Oh Really?????? What about BENGHAZI??????????#ASHAMED"</li> </ol>
---------------------	--	---

<p><b>Fright</b></p>	<p>Publics' postings display their fear of something or fear of doing something. It shows people's perception of risk, danger to health or life, status, power, security, or in the case of humans wealth or anything held valuable. Publics' postings show uncertainty about how to cope with the loss as well as how the involved organization may handle this situation. Also, their postings may express their</p> <p>willing to escape from/avoiding the crisis (action tendency).</p> <p>Eg., scared, fear, horrible, panic, terror, appalling</p>	<ol style="list-style-type: none"> <li>1. In the obamacare website case: "I am a single mother of two, in school and working full time, living 75% below the poverty level, and I DO NOT qualify for a healthcare subsidy... And I DO NOT EVEN WANT INSURANCE to begin with!! This is frightening."</li> <li>2. In the Target credit card case: " I am trying to purchase an item from Target, keep getting thrown off line. Don't know how to move forward..."</li> <li>3. In the Target credit card case: "I was just affected by this on Tues of this week. I NEVER shop at Target &amp; now I know why! I shopped once at Target all year &amp; of course during this time</li> </ol> <p>frame for a Christmas present. I've had horrible customer service w/ this incident. I've spend over 3 hours on the phone &amp; on hold w/ FTC, my bank, police, &amp; the credit bureaus. Target says personal info &amp; PIN was not disclosed. But somehow the person/people were able to withdraw cash from my account, when the card was in my possession, &amp; change my PIN. They have to have my info to do that!! Took all my money from my account!! Scary!!!"</p>
----------------------	--	---

<p><b>Sadness</b></p>	<p>Publics' postings express their feelings of disadvantage, loss, despair, unhappiness, helplessness and sorrow. Also, they express their desperate need for relief and comfort.</p> <p>Eg., sorrow, grief, tragedy, misery, devastated, heavy heart, sorry, pray, depressing,</p>	<ol style="list-style-type: none"> <li>1. In the target credit card case: "Sadly every retail operation has to fear data hacking. As long as there are people willing to steal, there will be times when they succeed. There is no way to keep data 100% secure."</li> <li>2. In the Hurricane Sandy disaster: "Praying for the homeless. Praying for everyone's safety, shelter and compassion for and I will tell you HE NEVER SLEEPS AND YOU WILL ANSWER FOR YOUR DEEDS."</li> <li>3. In the Hurricane Sandy disaster: "People in Massapequa have seen the FEMA people driving around in vehicles and taking notes. They have not received any help."</li> </ol>
-----------------------	---	---

<p><b>Sympathy</b></p>	<p>Publics' postings express the feeling that they care about and are sorry about someone else's trouble, grief, misfortune, etc; show their awareness of others' suffering. It is also a feeling of support and agreement with an opinion or position; share the same interests, opinions, goals, etc. Sympathy also shows people's understanding and sharing of a specific emotional state with organization's experiences and even emotions.</p> <p>Eg., understanding, support, encourage, compassion, pity, empathy, "Stop blaming"</p>	<ol style="list-style-type: none"> <li>1. In the Hurricane Sandy disaster: "I just hope people safe and don't go in harms way."</li> <li>2. In the Target credit card case: "It is incredibly unfortunate that this happened to Target during the holiday season. I appreciate Target's openness to this situation. I will always support Target, and believe they are in a class of there own."</li> <li>3. In the Target credit card case: "Target has invested hundreds of thousands of dollars more than the actual fraud amount to resolve these issues. They are being open and honest and working at maximum capacity to take care of this. Remember that they were hacked in a way that has never been done before...it's not like they we're careless with the information!"</li> </ol>
------------------------	--	--

<p><b>Alertness</b></p>	<p>Publics' postings tell people there is some danger or problem: an alarm or signal of danger. To advise and warn people to prepare for action, ready for something that people may be attacked.</p> <p>Eg., prepare, "watch out", "watchful", "get protection", "stay safe" "stay indoor"</p>	<ol style="list-style-type: none"> <li>1. In the Hurricane Sandy disaster: "like I have said... Be Prepared!!!!!"</li> <li>2. In the Target credit card case: " I also know my bank has my back if anything does pop up. It's a new day we live in- you're bound to be hacked sooner or later. Get some protection."</li> <li>3. In the Obamacare website case: "For your own security , I would not use it. To much PERSONAL INFO that is not secure at all."</li> </ol>
<p><b>Gratefulness</b></p>	<p>Publics' postings express warmly or deeply appreciative of kindness or benefits received; expressing gratitude; show publics' agreeable, welcome and thankful.</p> <p>Eg., thanks, love, great, agree, "good job", "right thing", "keep doing", favorable, satisfied</p>	<ol style="list-style-type: none"> <li>1. In the Hurricane Sandy disaster: "God bless everyone of you for all your help with the victims! You are the best!"</li> <li>2. In the Hurricane Sandy disaster: "Thank you FEMA!! Great Job!!"</li> <li>3. In the Hurricane Sandy disaster: "Thanks for the photos, FEMA. We appreciate everything done in disaster recovery - both you guys and Immediate Response Group!"</li> </ol>

<p><b>Disappointment</b></p>	<p>Publics' postings express their disappointment that result from the failure of expectations or hopes.</p> <p>Eg., let down, dissatisfaction, displeasure, upset, frustration.</p>	<ol style="list-style-type: none"> <li>1. In the Target credit card case: "I have not gotten good guest service via phone or in person and am so disappointed in Target."</li> <li>2. In the Obamacare website case: "I am so disappointed. These prices are outrageous and there are huge deductibles. No one can afford this!"</li> <li>3. In the Susan G. Komen case: "The next time some one asks me to support them in the Race for the Cure, I will reply that I will support them by sending a check directly to Planned Parenthood instead of to Komen. Komen has lost all of my support."</li> </ol>
------------------------------	--	---